

AMENDMENTS TO THE CLAIMS

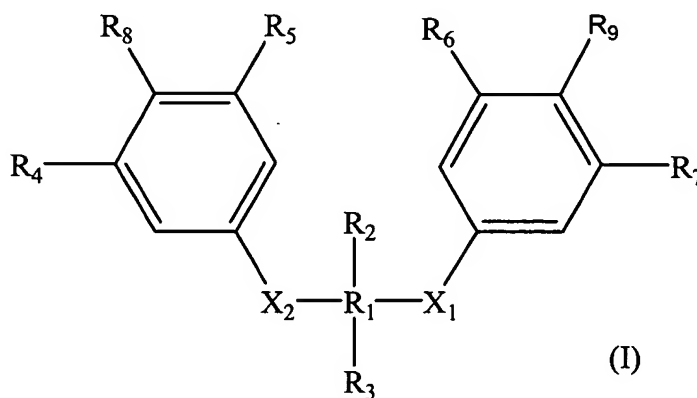
Please enter the following amendments without prejudice or disclaimer.

Please cancel claims 12-28 without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application.

**In the claims:**

1. (Original) A method for the prophylactic or therapeutic treatment of a disease or disorder associated with vascular health, said method comprising administering to a subject in need of such treatment an amount effective to treat a disease or disorder associated with vascular health, of a compound of Formula (I):



wherein:

$X_1$  and  $X_2$  are independently selected from the group consisting of oxy and a dialkyl substituted silyl;

$R_1$  is  $C_1$ - $C_4$  alkyl;

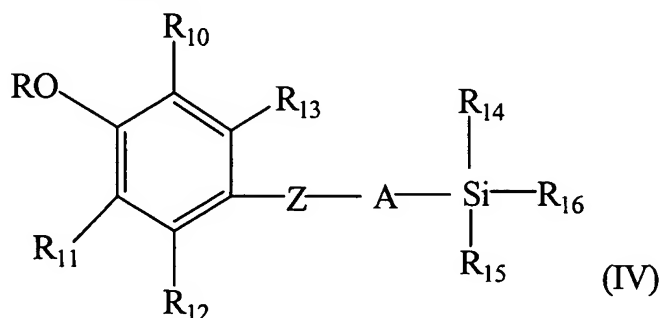
$R_2$  and  $R_3$  are independently selected from the group consisting of H and a  $C_1$ - $C_4$  alkyl;

$R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  are independently selected from the group consisting of H, methoxy, and a branched or straight chain  $C_1$ - $C_6$  alkyl; and

$R_8$  and  $R_9$  are independently selected from the group consisting of hydrogen, hydroxy, trifluoromethyl, halide, amine, alkyl, alkenyl, aryl, heteroaryl, alkanoyl, aryloyl, heteroaryloyl,  $-O(C_1-C_6 \text{ alkyl})$ ,  $-OCO-(H \text{ or } C_1-C_7 \text{ alkyl})$ ,  $-OCO-(C_3-C_7 \text{ alkenyl})$ ,  $-OCO-(\text{aryl})$ ,  $-OCO-(\text{heteroaryl})$ ,  $-(C_0-C_8 \text{ alkyl})-COOH$ ,  $-(C_2-C_8 \text{ alkenyl})-COOH$ ,  $-OCO-(C_0-C_6 \text{ alkyl})-COOH$ ,  $-OCO-(C_2-C_6 \text{ alkenyl})-COOH$ ,  $-CO-(C_0-C_6 \text{ alkyl})-COOH$ , and  $-CO-(C_2-C_6 \text{ alkenyl})-COOH$ ;

wherein when the  $R_8$  or  $R_9$  substituents are alkyl, alkenyl, aryl, heteroaryl, alkanoyl, aryloyl, heteroaryloyl,  $-O(C_1-C_6 \text{ alkyl})$ ,  $-OCO-(H \text{ or } C_1-C_7 \text{ alkyl})$ ,  $-OCO-(C_3-C_7 \text{ alkenyl})$ ,  $-OCO-(\text{aryl})$ ,  $-OCO-(\text{heteroaryl})$ ,  $-(C_0-C_8 \text{ alkyl})-COOH$ ,  $-(C_2-C_8 \text{ alkenyl})-COOH$ ,  $-OCO-(C_0-C_6 \text{ alkyl})-COOH$ ,  $-OCO-(C_2-C_6 \text{ alkenyl})-COOH$ ,  $-CO-(C_0-C_6 \text{ alkyl})-COOH$ , or  $-CO-(C_2-C_6 \text{ alkenyl})-COOH$ , they may be independently substituted with one or more functionalities independently selected from the group consisting of  $C_1-C_6$  alkyl, halogen,  $-OH$ ,  $-OCH_3$ ,  $-OCH_2CH_3$ , halomethyl, dihalomethyl, trihalomethyl,  $-NH_2$ ,  $-NO_2$ ,  $-CN$ ,  $-NC$ ,  $-C(=NH)(-NH_2)$ ,  $-SH$ ,  $-COOH$ ,  $-COOCH_3$ , and  $-COOCH_2CH_3$ ;

with the proviso that said compound of Formula (I) is not a compound of Formula (IV)



wherein:

$R_{10}$  and  $R_{15}$  are each independently  $C_1 - C_6$  alkyl;

$R_{11}$ ,  $R_{12}$  and  $R_{13}$  are each independently hydrogen or  $C_1 - C_6$  alkyl;

$R$  is hydrogen or  $-C(O) - (CH_2)_m - Q$ , wherein  $Q$  is hydrogen or  $-COOH$  and  $m$  is an integer 1, 2, 3 or 4;

$Z$  is a thio, oxy or methylene group;

$A$  is a  $C_1 - C_4$  alkylene group;

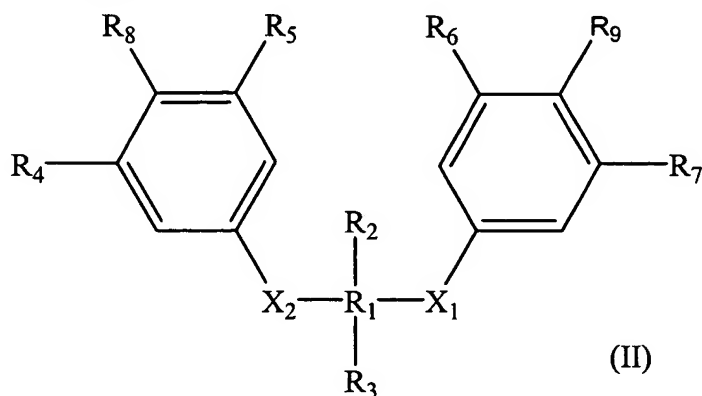
$R_{14}$  and  $R_{16}$  are each independently a  $C_1 - C_6$  alkyl or  $-(CH_2)_n - (Ar)$ , wherein  $n$  is an integer 0, 1, 2 or 3; and  $Ar$  is phenyl or naphthyl unsubstituted or substituted with one to three substituents selected from the group consisting of hydroxy, methoxy, ethoxy, halogen,

trifluoromethyl,  $C_1 - C_6$  alkyl, or  $-NR_{17}R_{18}$ , wherein  $R_{17}$  and  $R_{18}$  are each independently hydrogen or  $C_1 - C_6$  alkyl; with the proviso that when  $R_{11}$  and at least one of  $R_{14}$  or  $R_{16}$  is  $C_1 - C_6$  alkyl, and Ar is not substituted with trifluoromethyl or  $-NR_{17}R_{18}$ , then R is  $-C(O) - (CH_2)_m - Q$ ; or a pharmaceutically acceptable salt thereof.

2. (Original) The method of claim 1, wherein  $X_1$  and  $X_2$  are independently selected from the group consisting of oxy and dimethyl-silyl;  $R_1$  is methylene;  $R_2$  and  $R_3$  are hydrogen,  $R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  are independently selected from the group consisting of hydrogen and tert-butyl; and  $R_8$  and  $R_9$  are independently selected from the group consisting of hydroxy and methoxy.

3. (Original) The method of claim 1, wherein  $R_4$  and  $R_5$  are tert-butyl, and  $R_8$  is hydroxy.

4. (Original) A method for the prophylactic or therapeutic treatment of a disease or disorder associated with vascular health, said method comprising administering to a subject in need of such treatment an amount effective to treat a disease or disorder associated with vascular health, of a compound of Formula (II):



wherein

$X_1$  and  $X_2$  are independently selected from the group consisting of thio, oxy, and a dialkyl substituted silyl;

$R_1$  is  $C_1$ - $C_4$  alkyl;

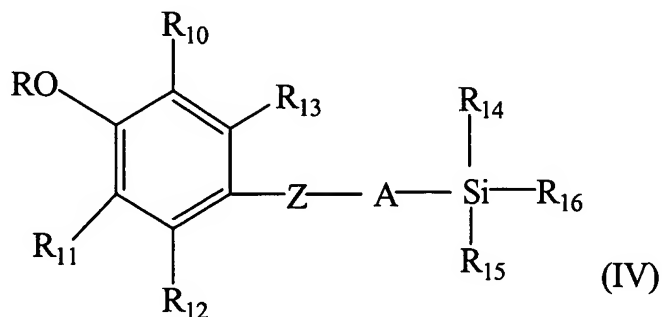
$R_2$  and  $R_3$  are independently selected from the group consisting of H and a  $C_1$ - $C_4$  alkyl;

$R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  are independently selected from the group consisting of H, methoxy, and a branched or straight chain  $C_1$ - $C_6$  alkyl; and

$R_8$  and  $R_9$  are independently selected from the group consisting of hydrogen, hydroxy, trifluoromethyl, halide, amine, alkyl, alkenyl, aryl, heteroaryl, alkanoyl, aryloyl, heteroaryloyl,  $-O(C_1-C_6 \text{ alkyl})$ ,  $-OCO-(H \text{ or } C_1-C_7 \text{ alkyl})$ ,  $-OCO-(C_3-C_7 \text{ alkenyl})$ ,  $-OCO-(\text{aryl})$ ,  $-OCO-(\text{heteroaryl})$ ,  $-(C_0-C_8 \text{ alkyl})-COOH$ ,  $-(C_2-C_8 \text{ alkenyl})-COOH$ ,  $-OCO-(C_0-C_6 \text{ alkyl})-COOH$ ,  $-OCO-(C_2-C_6 \text{ alkenyl})-COOH$ ,  $-CO-(C_0-C_6 \text{ alkyl})-COOH$ , and  $-CO-(C_2-C_6 \text{ alkenyl})-COOH$ ;

wherein when the  $R_8$  or  $R_9$  substituents are alkyl, alkenyl, aryl, heteroaryl, alkanoyl, aryloyl, heteroaryloyl,  $-O(C_1-C_6 \text{ alkyl})$ ,  $-OCO-(H \text{ or } C_1-C_7 \text{ alkyl})$ ,  $-OCO-(C_3-C_7 \text{ alkenyl})$ ,  $-OCO-(\text{aryl})$ ,  $-OCO-(\text{heteroaryl})$ ,  $-(C_0-C_8 \text{ alkyl})-COOH$ ,  $-(C_2-C_8 \text{ alkenyl})-COOH$ ,  $-OCO-(C_0-C_6 \text{ alkyl})-COOH$ ,  $-OCO-(C_2-C_6 \text{ alkenyl})-COOH$ ,  $-CO-(C_0-C_6 \text{ alkyl})-COOH$ , or  $-CO-(C_2-C_6 \text{ alkenyl})-COOH$ , they may be independently substituted with one or more functionalities independently selected from the group consisting of  $C_1-C_6$  alkyl, halogen,  $-OH$ ,  $-OCH_3$ ,  $-OCH_2CH_3$ , halomethyl, dihalomethyl, trihalomethyl,  $-NH_2$ ,  $-NO_2$ ,  $-CN$ ,  $-NC$ ,  $-C(=NH)(-NH_2)$ ,  $-SH$ ,  $-COOH$ ,  $-COOCH_3$ , and  $-COOCH_2CH_3$ ;

with the proviso that when said compound of Formula (II) is not a compound of Formula (IV)



wherein:

$R_{10}$  and  $R_{15}$  are each independently  $C_1 - C_6$  alkyl;

$R_{11}$ ,  $R_{12}$  and  $R_{13}$  are each independently hydrogen or  $C_1 - C_6$  alkyl;

$R$  is hydrogen or  $-C(O) - (CH_2)_m - Q$ , wherein  $Q$  is hydrogen or  $-COOH$  and  $m$  is an integer 1, 2, 3 or 4;

$Z$  is a thio, oxy or methylene group;

$A$  is a  $C_1 - C_4$  alkylene group;

$R_{14}$  and  $R_{16}$  are each independently a  $C_1 - C_6$  alkyl or  $-(CH_2)_n - (Ar)$ , wherein  $n$  is an integer 0, 1, 2 or 3; and  $Ar$  is phenyl or naphthyl unsubstituted or substituted with one to three

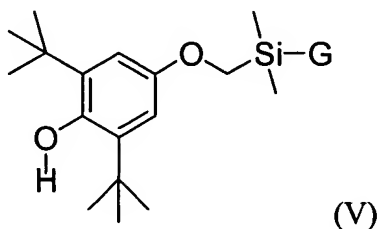
substituents selected from the group consisting of hydroxy, methoxy, ethoxy, halogen, trifluoromethyl,  $C_1 - C_6$  alkyl, or  $-NR_{17} R_{18}$ , wherein  $R_{17}$  and  $R_{18}$  are each independently hydrogen or  $C_1 - C_6$  alkyl; with the proviso that when  $R_{11}$  and at least one of  $R_{14}$  or  $R_{16}$  is  $C_1 - C_6$  alkyl, and Ar is not substituted with trifluoromethyl or  $-NR_{17} R_{18}$ , then R is  $-C(O) - (CH_2)_m - Q$ ; or a pharmaceutically acceptable salt thereof.

5. (Original) The method of claim 4, wherein  $X_1$  and  $X_2$  are independently selected from the group consisting of thio and dimethyl-silyl;  $R_1$  is methylene;  $R_2$  and  $R_3$  are independently selected from the group consisting of hydrogen and methyl;  $R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  are independently selected from the group consisting of hydrogen and tert-butyl; and  $R_8$  and  $R_9$  are independently selected from the group consisting of hydrogen, hydroxy, methoxy, and butandioate; with the proviso that when  $X_1$  and  $X_2$  are both thio,  $R_8$  and  $R_9$  are not both hydroxy.

6. (Original) The method of claim 4, wherein  $R_4$  and  $R_5$  are tert-butyl, and  $R_8$  is hydroxy.

7. (Original) The method of claim 4, wherein  $X_1$  and  $X_2$  are thio;  $R_1$  is methylene;  $R_2$  and  $R_3$  are methyl;  $R_4$ ,  $R_5$ ,  $R_6$ , and  $R_7$  are tert-butyl;  $R_8$  is hydroxy; and  $R_9$  is butandioate.

8. (Original) A method for the prophylactic or therapeutic treatment of a disease or disorder associated with vascular health, said method comprising administering to a subject in need of such treatment an amount effective to treat a disease or disorder associated with vascular health, of a compound of Formula (V):



[illegible]

Y<sub>1</sub> is -H, C<sub>1</sub>-C<sub>4</sub> alkyl, or C<sub>3</sub>-C<sub>6</sub> alkenyl;

$Y_2$  is  $-H$ ,  $C_1$ - $C_4$  alkyl, or  $C_3$ - $C_6$  alkenyl, aryl, heteroaryl, aryloyl, alkanoyl, or heteroaryloyl;

$Y_3$  is  $-H$ ,  $-CN$ ,  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl or heteroaryl;

$Y_4$  is  $(CH_2)_n$ , where  $n$  is 0-4, or  $C_2$ - $C_6$  alkenyl;

$Y_5$  is  $NH$ ,  $(CH_2)_n$ , where  $n$  is 0-4, or  $C_2$ - $C_6$  alkenyl;

$Y_6$  is  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

$Y_7$  is  $H$ ,  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl, heteroaryl, alkylaryl, or alkylheteroaryl, or  $NH$   
 $Y_8$ ;

$Y_8$  is  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

$Y_9$  is  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl, or heteroaryl;

$Y_{10}$  is alkyl, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

$L$  is  $C_1$ - $C_6$  alkyl or  $C_2$ - $C_6$  alkenyl; and

wherein  $G$  may be additionally substituted with one or more substituents independently selected from the group consisting of  $-F$ ,  $-Cl$ ,  $-Br$ ,  $-I$ ,  $-NH_2$ ,  $-OH$ ,  $-CN$ ,  $-SH$ ,  $-CH_3$ ,  $-CH_2CH_3$ ,  $-CF_3$ ,  $-OCH_3$ ,  $-OCH_2CH_3$ ,  $-COOH$ ,  $-COOCH_3$ , and  $-COOCH_2CH_3$ .

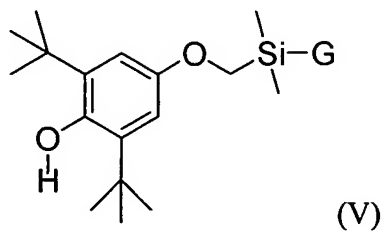
9. (Currently Amended) A method according to ~~any of claims~~ claim 1 to 8, wherein said disease or disorder associated with vascular health is selected from the group consisting of: major adverse cardiac events, vascular access dysfunction, and male erectile dysfunction.

10. (Currently Amended) A method according to ~~any of claims~~ claim 1 to 9, wherein said subject is selected from the group consisting of a hemodialysis patient, an end stage renal disease patient, or a diabetic patient.

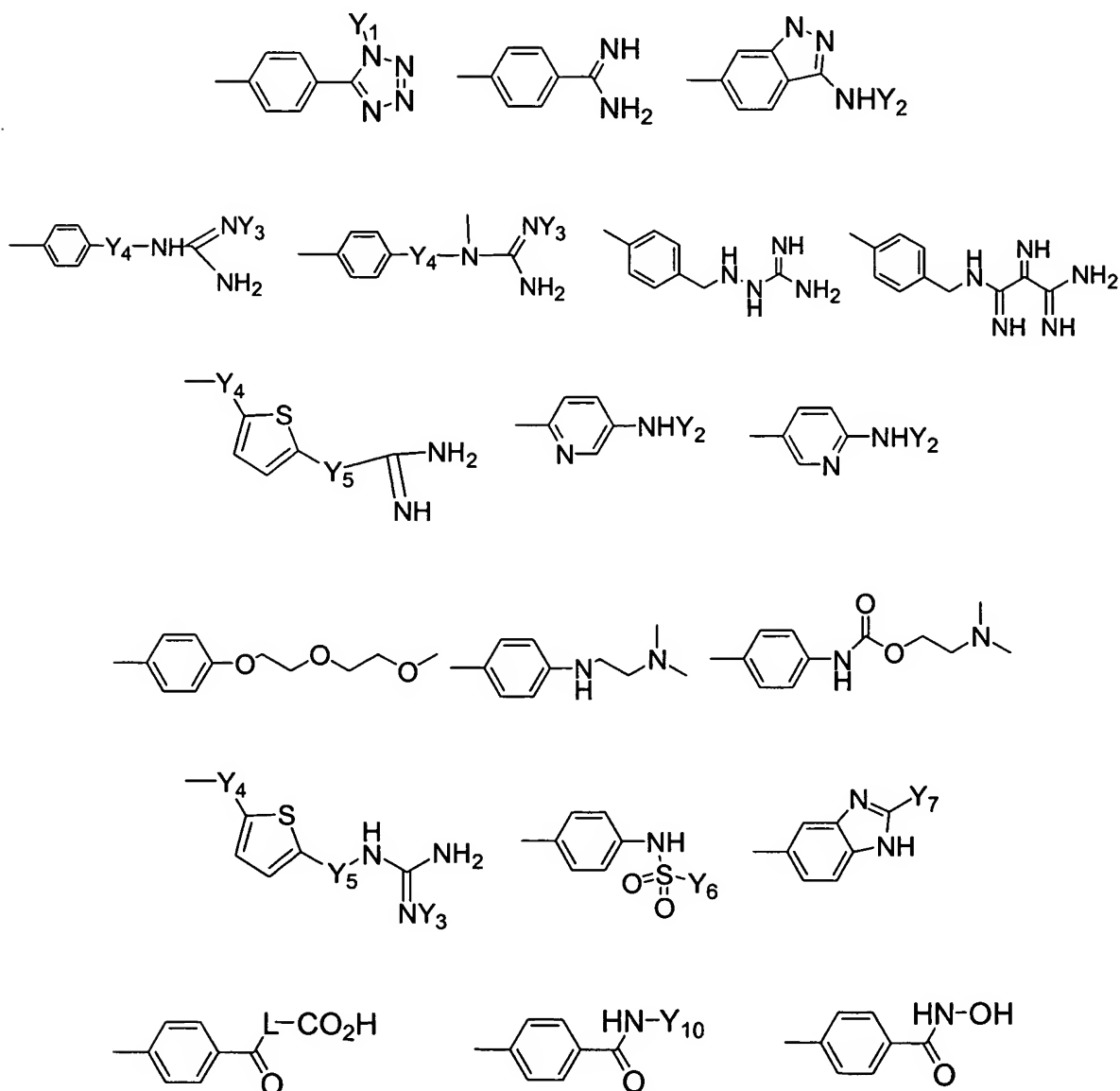
11. (Currently Amended) A method according to ~~any of claims~~ claim 1 to 10, wherein said subject is a subject having an increased oxidative burden or elevated oxidative stress, a subject having a vascular access shunt or graft, or a subject suffering from diabetes and experiencing erectile dysfunction or seeking prophylactic therapy.

12-28. (Canceled).

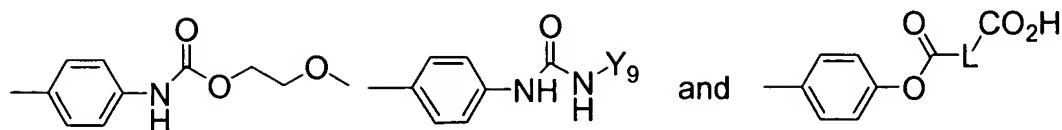
29. (Original) A pharmaceutical composition comprising a compound of Formula (V), or a salt or hydrochloride thereof,



wherein G is selected from the group consisting of:







wherein:

$Y_1$  is  $-H$ ,  $C_1$ - $C_4$  alkyl, or  $C_3$ - $C_6$  alkenyl;

$Y_2$  is  $-H$ ,  $C_1$ - $C_4$  alkyl, or  $C_3$ - $C_6$  alkenyl, aryl, heteroaryl, aryloyl, alkanoyl, or heteroaryloyl;

$Y_3$  is  $-H$ ,  $-CN$ ,  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl or heteroaryl;

$Y_4$  is  $(CH_2)_n$ , where  $n$  is 0-4, or  $C_2$ - $C_6$  alkenyl;

$Y_5$  is  $NH$ ,  $(CH_2)_n$ , where  $n$  is 0-4, or  $C_2$ - $C_6$  alkenyl;

$Y_6$  is  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

$Y_7$  is  $H$ ,  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl, heteroaryl, alkylaryl, or alkylheteroaryl, or  $NH$

$Y_8$ ;

$Y_8$  is  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

$Y_9$  is  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  alkenyl, aryl, or heteroaryl;

$Y_{10}$  is alkyl, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

$L$  is  $C_1$ - $C_6$  alkyl or  $C_2$ - $C_6$  alkenyl; and

wherein  $G$  may be additionally substituted with one or more substituents independently selected from the group consisting of  $-F$ ,  $-Cl$ ,  $-Br$ ,  $-I$ ,  $-NH_2$ ,  $-OH$ ,  $-CN$ ,  $-SH$ ,  $-CH_3$ ,  $-CH_2CH_3$ ,  $-CF_3$ ,  $-OCH_3$ ,  $-OCH_2CH_3$ ,  $-COOH$ ,  $-COOCH_3$ , and  $-COOCH_2CH_3$ ;

and a pharmaceutically acceptable excipient.

30. (Original) The pharmaceutical composition of claim 29, wherein said compounds of Formula (V) are formulated for oral administration in a self-emulsifying drug delivery system.

31. (Original) The pharmaceutical composition of claim 29, further comprising one or members of the group consisting of lactose, calcium phosphate, kaolin, glycerin, propylene glycol, polyethylene glycol, peanut oil, liquid paraffin, olive oil, sodium carboxymethylcellulose, methylcellulose, hydroxypropyl methylcellulose, sodium alginate, polyvinylpyrrolidone, gum

tragacanth, gum acacia; dispersing agents, wetting agents, and thickening agents.

32. (Currently Amended) The pharmaceutical composition of ~~any one of claims~~ claim 29 ~~to 31~~, further comprising one or more other active ingredients useful in the prophylactic or therapeutic treatment of major adverse cardiac events.

33. (Currently Amended) The pharmaceutical composition of ~~any one of claims~~ claim 29 ~~to 31~~, further comprising one or more other active ingredients useful in the prophylactic or therapeutic treatment of vascular access dysfunction.

34. (Currently Amended) The pharmaceutical composition of ~~any one of claims~~ claim 29 ~~to 31~~, further comprising one or more other active ingredients useful in the prophylactic or therapeutic treatment of erectile dysfunction.

35. (New) A method according to claim 4, wherein said disease or disorder associated with vascular health is selected from the group consisting of: major adverse cardiac events, vascular access dysfunction, and male erectile dysfunction.

36. (New) A method according to claim 4, wherein said subject is selected from the group consisting of a hemodialysis patient, an end stage renal disease patient, or a diabetic patient.

37. (New) A method according to claim 4, wherein said subject is a subject having an increased oxidative burden or elevated oxidative stress, a subject having a vascular access shunt or graft, or a subject suffering from diabetes and experiencing erectile dysfunction or seeking prophylactic therapy.

38. (New) A method according to claim 8, wherein said disease or disorder associated with vascular health is selected from the group consisting of: major adverse cardiac events, vascular access dysfunction, and male erectile dysfunction.

39. (New) A method according to claim 8, wherein said subject is selected from the group consisting of a hemodialysis patient, an end stage renal disease patient, or a diabetic patient.

40. (New) A method according to claim 8, wherein said subject is a subject having an increased oxidative burden or elevated oxidative stress, a subject having a vascular access shunt or graft, or a subject suffering from diabetes and experiencing erectile dysfunction or seeking prophylactic therapy.